REMARKS/ARGUMENTS

Applicant responds herein to the Office Action dated February 4, 2010.

As a preliminary point, it is mentioned that, although both boxes 2a and 2b have been marked as applicable in the "Office Action Summary", it has been confirmed with the Examiner that this action is not a Final Rejection.

In this RCE application, claims 40-47 and 57-64 have been rejected on grounds of obviousness over Takashi (JP 2003-005826), in view of Nakamoto (7,047,093) or Uchida (JP06-331507). Claims 48-50 and 65-67 are said to be obvious over Takashi, Nakamoto or Uchida, further in view of Konishi (6,145,519). Reconsideration is requested in view of the amendments to the claims herein and the following remarks.

As amended, both independent claim 40 and independent claim 57 recite that the abnormality detection part is not only configured to detect a processing abnormality based on a combined effect of said plurality of control elements, but additionally, the component is also able: "to determine that no processing of normality is present in a combination of a plurality of control elements deviating from respective reference values by predetermined amounts or more, when effects caused by such deviations compensate each other".

As presently amended, the uniqueness and novelty of the present independent claims over the prior art derives not only from the ability to assess a combined effect obtained from a plurality of control elements collected by the collection part, but also from the special determination which allows the system to avoid reaching a decision of abnormality in certain situations. This occurs when the combined results obtained from the plurality of elements are such that even though some of the values deviate from their respective normal reference range values by certain predetermined amounts, nonetheless, no "abnormality" is declared when these deviating effects "compensate each other".

To gain a better appreciation for what is being claimed, applicant reproduces below the text from page 25, lines 5 through 15 of the instant specification. Please note that a similar description is provided in the specification, in the paragraphs which bridges pages 42 and 43 of the specification.

"As a specific example of synthetic judgment based on a combination of a plurality of control elements in the first embodiment, even when the removal solution discharge time in the removal solution discharge and spread step is shorter than a reference value, the amount of removal solution supplied to a substrate W is considered to be substantially the same as a reference value in the event that the flow rate of the removal solution is greater than a reference value. In this case, it is judged that no processing abnormality is present. Thus, in a combination of a plurality of control elements deviating from respective reference values by predetermined amounts or more, it is judged that no processing abnormality is present as long as effects caused by such deviation compensate each other. As a result, a processing abnormality can be detected with a high degree of accuracy." (Emphasis added.)

Thus, the Examiner will appreciate that sometimes, a judgment is made that no "abnormality" is present, when "...effects caused by such deviations compensate each other".

Respectfully, none of the prior art of record, and not even their combined teachings, would lead one of ordinary skill in the art to the subject matter presented in applicant's independent claims. In other words, no prior art of record, and even the combination thereof, discloses or suggests the results obtained by the instant claims. In accordance with these claims, if a plurality of control elements were to be judged separately, one would have reached a decision of "abnormality". But because the different parameters are allowed to "compensate each other", no processing abnormality is declared by the presently claimed system, where the prior art would have declared an "abnormality".

Turning to the prior art, the newly cited Nakamoto reference discloses to simultaneously display a plurality of data outputs from a plurality of sensors. Further, Uchida discloses to perform an abnormality diagnosis of a plant by using a set of parameters or sensor data which has accumulated various pieces of information concerning the plant. However, despite the disclosures of both of these references as summarized above, as summarized above, neither one teaches the claimed abnormality detection part judging or determining approach, which provides the effect that no processing abnormality is declared, despite the fact that among the combination of plurality of control elements, some deviate from respective reference values by amounts which would normally be deemed to be "abnormal". Nonetheless, and as recited in applicant's claims,

"as long as effects caused be such deviation compensate each other", no abnormality is declared. This is not taught in any of the prior art.

Further, although Takashi discloses a method that judges whether inferior conditions exist by diagnosing the condition of temperature and humidity, it fails to disclose an abnormality detection part which determines that no processing abnormality is present, when a combination of a plurality of control elements deviating from respective reference values by certain amounts, in the special situation when the "effects caused by such deviation compensate each other". The Konishi reference, similarly, does not disclose that feature.

Based on the foregoing remarks, it is respectfully submitted that the independent claims in the application are not rendered obvious by the prior art and, therefore, those independent claims (and their dependent claims) should be promptly allowed.

Accordingly, the Examiner is respectfully requested to reconsider the application, allow the claims as amended and pass this case to issue.

Respectfully submitted,

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